

REMARKS

In response to the examiner's statement that the application did not contain an Abstract of the Disclosure, it is respectfully submitted that an Abstract was filed, a copy of which is enclosed. However, a replacement Abstract has been provided herein, since the filed Abstract contained over 150 words, contrary to 37 C.F.R. 1.72(b).

Claims 31-64 are pending in the application.

Independent claims 31 and 62 were rejected under 35 U.S.C. § 102(e) as being anticipated by Padovani et al., U.S. Patent No. 6,151,502. Independent claims 44, 48, 51, 52, 63 and 64 were rejected under 35 U.S.C. § 102(e) as being anticipated by Blakeney, II et al., U.S. Patent No. 5,267,261.

Independent claims 31 and 62 include a hand-off control portion which initially sets a first base transceiver station to an active state where its uplink and downlink channels are in use and sets another base transceiver station to a dormant state where its uplink and downlink channels are not in use.

Padovani does not teach, disclose, or suggest this feature. The portions of Padovani cited by the examiner in support of the rejection of claims 31 and 62, column 3, line 59 – column 4, line 16 and column 4, lines 17-25, nowhere refer to initially placing one base transceiver station in an active state and another base transceiver station in a dormant state. Moreover, the active base stations in Padovani are determined by their signal strength relative to other base stations, not by whether their uplink and downlink channels are in use, as claimed in claims 31 and 62.

Independent claim 44 provides for a mobile station including a call setup information receiving portion which receives network call setup information from a first base transceiver

station of the network for use by the mobile station to allocate respective uplink and downlink channels between the mobile station and at least one further base transceiver station of the network.

In contrast, column 3, lines 32-44, and column 3, line 45 – column 4, line 28, of Blakeney, II et al., cited by the examiner in support of his rejection of claims 44, do not disclose, teach or suggest anything about the allocation of uplink and downlink channels between a mobile station and a base transceiver station.

Independent claim 48, analogously to independent claims 31 and 62, includes a hand-off control portion which initially maintains a base transceiver station in a dormant state where its uplink and downlink channels are not in use and this changes the base transceiver station from the dormant state to an active state where its uplink and downlink channels are in use.

In contrast, column 8, lines 28-46, of Blakeney, II et al., cited by the examiner in support of his rejection of claim 48, discloses a hand-off method between base stations depending on relative signal strength, but does not disclose, teach, or suggest anything about active or dormant states of a base transceiver station depending on whether or not its uplink and downlink channels are in use.

Independent claim 51 claims a communication method which includes the allocation of uplink and downlink channels between a mobile station and one base transceiver station and between the mobile station and another base transceiver station, setting the one base transceiver station to an active state in which uplink and downlink channels between the one base transceiver station and the mobile station are in use, and setting the other base transceiver station to a dormant state in which uplink and downlink channels between the other base transceiver station and the mobile station are not in use.

In contrast, column 9, lines 39-50, and column 9, line 60 – column 10, line 7, of Blakeney, II et al., cited by the examiner in support of his rejection of claim 51, does not disclose, teach, or suggest anything about allocation of uplink and downlink channels or the assignment of active or dormant states based upon whether or not uplink and downlink channels are in use. All that is disclosed is the hand-off of a mobile station from one base station to another based upon base station signal strength.

Independent claim 52 provides that the same uplink channel and/or downlink channel is/are assigned to a mobile station for communicating with a plurality of base transceiver stations, and the mobile station uses those channel(s) both before and after an operation in which the mobile station is handed off from one base transceiver station to another.

In contrast, column 11, lines 47-57, of Blakeney, II et al., cited by the examiner in support of the rejection of independent claim 52, describes a handoff operation between two base stations, but does not disclose, teach, or suggest anything about the use of the same uplink and/or downlink channel by a mobile station both before and after the hand-off of the mobile station from one base transceiver station to another.

Independent claim 63 provides that a mobile station includes a call setup information receiving means, which receives from a first base transceiver station, call setup information for use by the mobile station to allocate respective uplink and downlink channels between the mobile station and at least one further base transceiver station of the network.

In contrast, column 3, line 32 to column 4, line 28, of Blakeney, II et al., cited by the examiner in support of the rejection of independent claim 63, discloses an active set of pilots corresponding to base stations through which a mobile station is to communicate, the active set being chosen on the basis of signal strength, but there is no disclosure, teaching or suggestion of

allocation of uplink and downlink channels between the mobile station and a base transceiver station of the network.

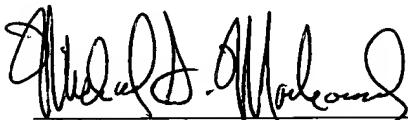
Independent claim 64 provides that a base transceiver station includes call setup information receiving means to receive call setup information for use by the base transceiver station to allocate uplink and downlink channels between the base transceiver station and the mobile station, and hand-off control means initially to maintain the base transceiver station in a dormant state in which uplink and downlink channels are not in use and then changes the base transceiver station from the dormant state to an active state in which the uplink and downlink channels are in use.

Column 8, lines 28-46, of Blakeney, II et al., cited by the examiner in support of his rejection of claim 48, as previously mentioned, and also in support of his rejection of claim 64 discloses a hand-off method between base stations depending on relative signal strength. It does not disclose, teach, or suggest the allocation of uplink and downlink channels between a base transceiver station and a mobile station nor active or dormant states, depending on whether or not uplink and downlink channels are in use.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



Michael I. Markowitz
Reg. No. 30,654

Enclosure: Copy of originally filed Abstract

CUSTOMER NUMBER 026304

Telephone: (212) 940-8687
Fax: (212) 940-8986 or 8987
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ABSTRACT

SOFT HAND-OFF IN CELLULAR MOBILE
COMMUNICATIONS NETWORKS

5 In a call setup process for setting up a call for
a mobile station of the network, respective uplink and
downlink channels are allocated between the mobile
station and a first one of a plurality of base
transceiver stations of the network. The mobile
10 station and at least one further base transceiver
station of the plurality, neighbouring the said first
base transceiver station, are provided with call setup
information for use by the mobile station and the or
each further base transceiver station to allocate
15 respective uplink and downlink channels between the
further base transceiver station concerned and the
mobile station. Upon completion of the call setup
process, the first base transceiver station is set
initially to an active state, in which its said uplink
20 and downlink channels are in use, and the or each said
further base station is set to a dormant state in which
the uplink and downlink channels of the further base
transceiver station concerned are not in use. When,
during the course of the call, it is determined that
25 the mobile station should communicate with the, or one
of the, further base transceiver stations, the call
setup information provided in the call setup process is
employed to bring about change of that further base
transceiver station from the said dormant state to the
30 said active state.

Such a hand-off procedure can be sufficiently fast
to operate usefully in a microcellular environment.

[FIGURE 6]